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#### PATENT COOPERATION TREAT





### · INTERNATIONAL PRELIMINARY EXAMINATION REPORT

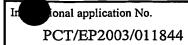
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		See Noti	fication of Transmittal of International						
31139P WO	FOR FURTHER ACTION See Notification of Transmittal of Internation Preliminary Examination Report (Form PCT/IPEA/4								
International application No.	International filing date (da		Priority date (day/month/year)						
PCT/EP2003/011844	24 October 2003 (2		26.October 2002 (26.10.2002)						
International Patent Classification (IPC) or national classification and IPC C07D 239/46									
C07D 239/40									
Applicant DEGUSSA AG									
<ol> <li>This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> </ol>									
2. This REPORT consists of a total of 5 sheets, including this cover sheet.									
This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).									
These annexes consist of a total of sheets.									
3. This report contains indications relating to the following items:									
I Basis of the report	I Basis of the report								
II Priority									
III Non-establishment o	of opinion with regard to nov	elty, inventive s	tep and industrial applicability						
Lack of unity of inv			. , ,						
V Reasoned statement citations and explan	Reasoned statement under Article 25(2) with record to result.								
	Control of the second								
VII Certain defects in th	e international application								
VIII Certain observations	Contain absorbations on the interval of the state of the								
Date of submission of the demand		Date of completion of this report							
29 March 2004 (29.03.	2004)	27	April 2004 (27.04.2004)						
Name and mailing address of the IPEA/EP	Auti	Authorized officer							
Facsimile No.		Telephone No.							

Form PCT/IPEA/409 (cover sheet) (July 1998)

Translation

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT



$\vdash$	I. Basis of the report				
1.	With	regard to	to the elements of the international application:*		
	$\boxtimes$	the inte	ternational application as originally filed		
	$\boxtimes$	the desc	scription:		
		pages	1-9	, as originally filed	
		pages	, fi	iled with the demand	
		pages	, filed with the letter of		
	$\boxtimes$	the clair			
		pages		, as originally filed	
		pages	, as amended (together with any statem		
		pages	, fi		
		pages	, filed with the letter of		
		the drav	awings:		
		pages		, as originally filed	
		pages	, fi		
		pages	, filed with the letter of		
	☐ t	he seaue	ence listing part of the description:		
	<u> </u>	pages		as originally filed	
		pages	, fi		
		pages	, filed with the letter of		
2.	the in	nternatior e elemen	to the language, all the elements marked above were available or furnished to this Authority in tonal application was filed, unless otherwise indicated under this item.  nts were available or furnished to this Authority in the following language		
	님		nguage of a translation furnished for the purposes of international search (under Rule 23.1(b)).		
	H		nguage of publication of the international application (under Rule 48.3(b)).	_	
	Ц	the lan or 55.3	inguage of the translation furnished for the purposes of international preliminary examination (u.3).	inder Rule 55.2 and/	
3.	With	minary ex	I to any nucleotide and/or amino acid sequence disclosed in the international application examination was carried out on the basis of the sequence listing:	on, the international	
		contain	ined in the international application in written form.		
	닏		together with the international application in computer readable form.		
	H		shed subsequently to this Authority in written form.		
	H		shed subsequently to this Authority in computer readable form.		
		interna	statement that the subsequently furnished written sequence listing does not go beyond the ational application as filed has been furnished.		
			statement that the information recorded in computer readable form is identical to the written furnished.	sequence listing has	
4.		The an	mendments have resulted in the cancellation of:		
	-		the description, pages		
			the claims, Nos.		
			the drawings, sheets/fig		
5.		This rep	eport has been established as if (some of) the amendments had not been made, since they have be the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	een considered to go	
	in th	is report 70.17).	t sheets which have been furnished to the receiving Office in response to an invitation under Artic rt as "originally filed" and are not annexed to this report since they do not contain amen	ndments (Rule 70.16	
**	Any 1	replacem	ment sheet containing such amendments must be referred to under item 1 and annexed to this repo	rt.	

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1.	Statement			
	Novelty (N)	Claims	1-9	YES
		Claims		NO .
	Inventive step (IS)	Claims	1-9	YES
		Claims		NO NO
	Industrial applicability (IA)	Claims	1-9	YES
		Claims		NO NO

#### 2. Citations and explanations

This report makes reference to the following documents, which were cited in the international search report:

- D1: TRANTOLO ET Al: 'Inhibitors of Bacillus subtilis DNA
  Polymerase III. Influence of Modifications in the
  Pyrimidine Ring of Anilino- and
  (Benzylamino)pyrimidines' JOURNAL OF MEDICINAL
  CHEMISTRY, vol. 29, no. 5, 1986, pages 676-681,
  XP002269094 (mentioned in the application)
- D2: BOON W R: 'PTERIDINES. PART IV. DERIVATIVES OF 2:4DIAMINOPTERIDINE AND RELATED COMPOUNDS' JOURNAL OF
  THE CHEMICAL SOCIETY, CHEMICAL SOCIETY. LETCHWORTH,
  GB, 1957, pages 2146-2158, XP001153711 ISSN: 03681769

#### Novelty (PCT Article 33(2))

The present process is not described in the prior art (D1 and D2) and is therefore novel within the meaning of PCT Article 33(2).

## Inventive step (PCT Article 33(3))

D1 and D2 describe processes for preparing 2-amino-4-

chloro-6-alkoxypyrimidines by reacting 2-amino-4,6dichloropyrimidines with an alkoxide. D1 may be considered to represent the closest prior art.

The problem addressed by the present invention was that of providing a novel process for preparing 2-amino-4-chloro-6-alkoxypyrimidines.

The present process differs from those described in D1 and D2 in the use of a polar aprotic solvent and in the specific method of working up the raw product.

These specific reaction conditions are not suggested by the prior art and the present process therefore involves an inventive step within the meaning of PCT Article 33(3).